2006

CONSUMER CONFIDENCE REPORT

CITY OF SAN BRUNO

Annual Water Quality Report

A public service provided by the City of San Bruno, the Peninsula City of choice in which to live, learn, work, shop and play.

The City of San Bruno is proud to provide our customers with the annual Consumer Confidence Report (CCR). This year's report is in compliance with new regulations of the 1998 Safe Drinking Water Act (SDWA) reauthorization, that charges the U.S. Environmental Protection Agency (U.S.EPA) with updating and strengthening the tap water regulatory program. This report presents water quality and supply information for 2006. During 2006, the City and the San Francisco Public Utilities Commission (SFPUC) monitored the water quality of both source and treated water supplies. The City of San Bruno wants you, our customer, to know that your water system has met all water quality standards established by the U.S.EPA and the California Department of Health Services (DOHS).

HOW CAN THE PUBLIC BE INVOLVED?

Meetings of the City of San Bruno City Council begin at 7:00 PM on the second and fourth Tuesdays of each month and are open to the public. Meetings are held at the San Bruno Senior Center located at 1555 Crystal Springs Road.

If you have any questions or need further information, please feel free to contact the City of San Bruno Water Division at (650) 616-7162, or by mail at City of San Bruno Water Division, 567 El Camino Real, San Bruno, CA 94066-4247. A copy of the 2006 Consumer Confidence Report will also be posted on the City's website at www.sanbruno.ca.gov.

Decisions about SFPUC water quality issues are made from time to time in public meetings held at San Francisco City Hall, 1 Doctor Carlton B. Goodlett Place, Room 400, San Francisco CA 94102. Inquiries about these meetings may be directed to the Office of the Commission Secretary at (415) 554-3165. Additional information about the SFPUC water quality may be obtained by calling (877) 737-8297, or by going to their website at www.sfwater.org.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

此份有关你的食水报告,内有重要资料和讯息,请找 他人为你翻译及解释清楚。

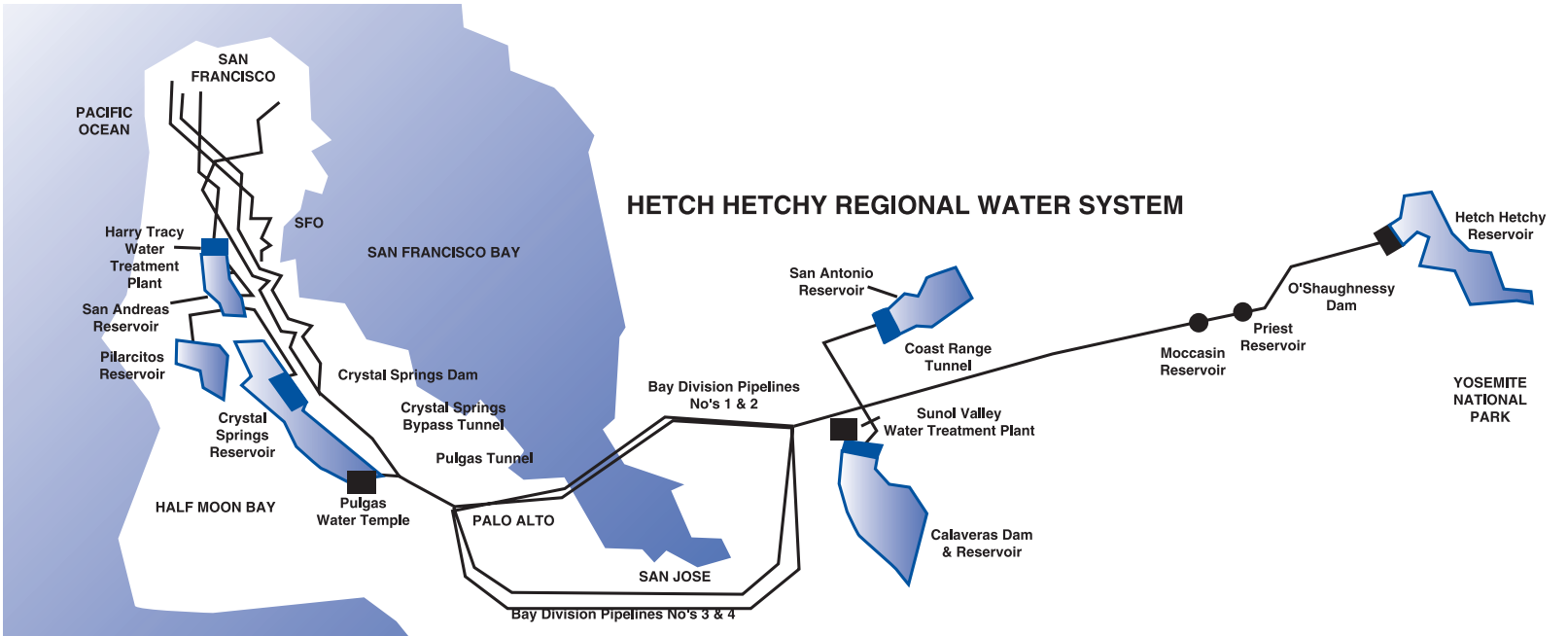
Throughout this report customers will be able to find useful information specifically related to the City of San Bruno water system, as well as information related to drinking water in general. The primary mission of this report is to summarize the past year's water quality data that are found in the tables at the end of this brochure. You will also find valuable information about City's current operations as well as future changes or improvements to the water system. The City of San Bruno continues its commitment to provide you with safe, high quality drinking water.

Sources of The City's Water

The supply of water for the City of San Bruno is derived from two primary sources, surface water and deep wells. Groundwater from the City's 5 wells is blended throughout the distribution system with water purchased from the San Francisco Public Utilities Commission (SFPUC). The SFPUC water supply comes from three major sources: Hetch Hetchy watershed in the Sierra Nevada Mountains, and two other watersheds in Alameda County and the San Francisco Peninsula.

Hetch Hetchy watershed, which is the largest in the SFPUC system, is located in Yosemite National Park. It provided approximately 94 percent of the total water supply in 2006. Spring snowmelt flows down the Tuolumne River and is stored in Hetch Hetchy Reservoir. The high quality Hetch Hetchy water supply meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality and operational standards. As a result, the California Department of Health Services (DOHS) granted the Hetch Hetchy water source a filtration exemption.

Together the Alameda and Peninsula watersheds produced about six percent of the total water supply in 2006. The Alameda watershed, located in Alameda and Santa Clara Counties, contributes surface water supplies by storing rainfall and runoff in Calaveras and San Antonio Reservoirs. Rainfall and runoff captured in the Peninsula watershed in San Mateo County are stored as surface water supply in four reservoirs a) lower and upper Crystal Springs, b) San Andreas, c) Pilarcitos, and d) Stone Dam. The Alameda surface water sources are supplemented by a small amount of groundwater collected by the Sunol Filter Galleries near the Town of Sunol. Prior to delivery, water from the Alameda watershed and Sunol Filter Galleries is treated at Sunol Valley Water Treatment Plant and water from the Peninsula watershed is treated at Harry Tracy Water Treatment Plant. San Bruno produced well water is obtained from five deep wells located within the lower half of the City that are capable of producing approximately one-half of the City's annual water supply.



Water Quality is extremely important to the staff of the City of San Bruno Public Works Department, DOHS rated San Bruno water system to be Water Treatment 2 and Distribution 4 certified. Water Division employees are State Health Department certified Grades 1 to Grade 3 Water Treatment Operators. All employees have Grade 1 to 4 Distribution Certifications. The Water Division maintains a laboratory and conducts or supervises more than 10,000 analyses of water samples each year. The staff samples daily from water sources, treatment facilities, and distribution systems throughout City's service area. Using state of the art laboratory equipment capable of measuring minute quantities of contaminants in the parts-per-million range, samples are analyzed on a routine basis to insure that water quality standards are met and maintained. Additional samples are delivered to a contracted State certified independent laboratory for further analysis. You can be assured that the City's drinking water consistently meets or exceeds established water quality standards.

Safeguarding City water supply

Securing the City's water facilities is a top priority. Residents can be assured that the City of San Bruno is taking every precaution to protect the public water supply against a possible terrorist attack. We are working with law enforcement agencies, public health officials, other water utilities, and the Department of Homeland Security to ensure City's water supply is protected. We have raised City's level of security and have implemented additional security measures as warranted. Some examples of security measures include fully enclosed and alarmed water storage facilities, 24 hour security monitoring, an expanded system of alarms, and daily water quality sampling.

SOURCE PROTECTION

Source protection is the primary barrier, the first line of defense against contamination of your drinking water at its source. Hetch Hetchy Reservoir, which is the largest reservoir in the SFPUC system, is located in Yosemite National Park. This reservoir provides approximately 85 percent of the total water supply. Spring snowmelt flows down the Tuolumne River and fills the reservoir. The high quality Hetch Hetchy water supply meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality and operational standards. The SFPUC strictly controls activities on the watershed lands around their reservoirs, limiting activities to those compatible with maximum protection of the water quality. As a result, the U.S. Environmental Protection Agency (U.S. EPA) and California Department of Health Services (DOHS) granted the Hetch Hetchy water source a filtration exemption. This exemption is contingent upon the Hetch Hetchy water quality continuing to meet all filtration avoidance criteria.

PROTECTING CITY WATERSHEDS

The SFPUC aggressively protects the natural water resources entrusted to its care. We continuously monitor the City's watersheds' weather conditions, water turbidity levels, microbial contaminants, and aqueduct disinfectant levels. The SFPUC's 2006 annual update of the Watershed Control Program and Sanitary Survey describes the watersheds and water supply system, identifies potential sources of contamination in the watersheds, discusses the existing and recommended watershed management practices that protect water quality, and summarizes the water quality monitoring we conducted.

The SFPUC also conducts a sanitary survey for local watersheds every five years. The 2005 assessment found that SFPUC watersheds have very low levels of contaminants, and those contaminants are associated with wildlife and, to a limited extent, human recreational activity.

San Bruno's groundwater is drawn from a deep aquifer more than 200 feet below the surface. It is protected from contamination by impervious layers of clay deep in the ground. The soil layers filter contaminants borne by surface water and shallow groundwater that may eventually reach the aquifer over several centuries of time before it reaches the well locations. The wells are constructed to meet strict standards imposed by San Mateo County Environmental Health Division to ensure that no surface water or shallow groundwater can enter the aquifer at those points. In cooperation with San Mateo County Environmental Health Division, San Bruno participates in a wellhead protection program established to ensure the long-term protection of the quality of San Bruno's groundwater resources.

Water treatment is the next layer of protection of the City's drinking water. Throughout 2006, the City's well water was disinfected with chloramine, a combination of chlorine and ammonia at the wellhead. Also, City well water is sampled to ensure the health and safety of City's consumers. In addition, the City's Lions Field Well and Forest Lane Well are equipped with a filtering plant to remove iron and manganese and adjust pH levels prior to distribution to City's customers. This is to ensure that water from this particular well meets or exceeds all Secondary Drinking Water Standards as set by the DOHS.

Water System Operations

Effective operation and maintenance of the distribution system assures that the water maintains its quality as it travels through the system to your tap. The disinfectant residual in the water after treatment prevents the regrowth of microbial organisms during storage and transmission of water in the distribution system. The flushing of City's water mains and rotation of stored supplies also keeps the water fresh and limits the possibility for growth of such organisms. San Bruno conducts mandatory weekly water quality testing of the distribution system to ensure that the City's drinking water continues to be safe and healthy.

San Bruno also maintains an active cross connection control program to prevent the intrusion of potentially harmful materials into the drinking water system. Cross connection control is done by isolating hazards such as boilers, cooling towers, and fire sprinklers from the drinking water supply by installing approved backflow prevention devices.

FLUORIDE IN THE CITY'S DRINKING WATER

Water supplied to San Bruno by the SFPUC has been fluoridated since 1965. SFPUC completed a new fluoridation facility in the East Bay in September 2005; the SFPUC fluoridates the drinking water of its entire suburban wholesale service area to protect their customers' dental health. This new facility, which will replace the SFPUC's aged Polhemus Fluoride Station in San Mateo County, will not change the fluoride level in the water that San Bruno receives from the SFPUC. Because the SFPUC water supply that we purchase is blended with out own well water supplies that are non-fluoridated, the water that you receive at your home may contain fluoride that is below the optimal level.

For more information about fluoride, contact your water service provider, or visit the SFPUC website at sfwater.org/fluoride. Local county health departments are also a good source of information about fluoride. Here are some phone numbers you may call:

- SFPUC Fluoride Information Line (866) 668-6008
- San Mateo County Health Department (650) 372-8572
- County of Santa Clara Health Depart. (408) 885-3980

SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the U.S. EPA Safe Drinking Water Hotline (800) 426-4791 or on U.S. EPA's Web site *epa.gov/safewater*.

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Although the presence of small amounts of these substances does not necessarily indicate that the water poses a health risk, extensive monitoring and testing of the drinking water is done to assure the safety of City's customers.

Contaminants that may be present in source water include:

- **Microbial Contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic Contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive Contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (U.S. EPA) and the DOHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DOHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Unregulated Contaminant Monitoring helps the U.S. EPA and DOHS to determine where certain contaminants occur and whether the contaminants need to be regulated. During 2001, the SFPUC and the City of San Bruno monitored as many as twelve unregulated contaminants including MTBE, perchlorate, herbicides, and pesticides. These contaminants were not detected in any of SFPUC or City of San Bruno supplies.

In making significant modifications to its disinfectant processes, the City integrated all of the disinfection equipment into its Supervisory Control and Date Acquisition (SCADA) system, thereby adding another level of safety to drinking water quality. Other improvements include pipelines, regulating stations, and an additional well that will further provide the system's managers with more flexibility and capacity to operate the system to the best advantage of the customer.

WHAT YOU SHOULD KNOW ABOUT CRYPTOSPORIDIUM & GIARDIA

Cryptosporidium and Giardia are parasitic microbes found in most surface water supplies and can pose a potential health threat. If ingested, either may produce symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. The SFPUC tests regularly for *Cryptosporidium and Giardia* in both source and treated water supplies. Both were occasionally found at very low levels in the SFPUC's water in 2004.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including *Cryptosporidium and Giardia*. The presence of small amounts of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

LEAD AND COPPER

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. It is also recommended that homeowners who are concerned about elevated lead levels run their tap 30 seconds to two minutes before use. Additional information is available from the Safe Drinking water hotline (800) 426-4791 or at the US EPA's we site *www.epa.gov*.

San Bruno has tested for lead and copper in the city supply since 1992 as part of the Lead and Copper Rule monitoring program. During 2004 over 41 volunteers took samples at the tap in their homes, which were then analyzed for lead and copper content as well as for the corrosive nature of the water. It should be noted that the water San Bruno delivers to its customers does not contain lead, but it may acquire lead from older soldered pipe joints in household plumbing.

City of San Bruno Water Quality Data for Year 2006 [1]

				SFPUC		San Bruno Wells		
DETECTED CONTAMINANTS	**Unit**	**MCL**	**PHG (MCLG)**	**Range**	**Average (Max)**	**Range**	**Average (Max)**	**Typical Sources in Drinking Water**
TURBIDITY [2]								
Unfiltered Hetch Hetchy Water, max 5 NTU	-	TT	NS	0.22 - 0.93 [2]	(4.4) [3]			Soil run-off
Filtered Water - Harry Tracy WTP, max 1 NTU	-	TT	NS	-	(0.2)			Soil run-off
more than 95% of measurements < 0.3 NTU	-	TT	NS	99.3% [4]	-			Soil run-off
Filtered Water - Sunol Valley WTP, max 1 NTU	-	TT	NS	-	(0.18)			Soil run-off
more than 95% of measurements < 0.3 NTU	-	TT	NS	100% [4]	-			Soil run-off
DISINFECTION BY-PRODUCTS								
Total Trihalomethanes (TTHMs)	ppb	80	NS	22 - 57	(38) [5]	<0.5 - 42.3	15.45 [6]	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NS	8 - 45	(25) [5]	<1 - 18.1	8.0 [6]	By-product of drinking water chlorination
Total Organic Carbon (TOC) [7]	ppm	NS	NS	1.1 - 2.9	2.4	NA	NA	Various natural and man-made sources
INORGANIC CHEMICALS								
Aluminum	ppb	1000	600	<50 - 71	<50	ND	ND	Erosion of natural deposits
Fluoride [8]	ppm	2.0	1.0	0.1 - 1.5	1.0	ND	ND	Water additive that promotes strong teeth
Chlorine	ppm	MRDL = 4.0	MRDLG = 4			1.4 - 2.4	2.4 [6]	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	**Unit**	**SMCL**	**PHG**	**Range**	**Average**	**Range**	**Average**	**Typical Sources in Drinking Water**
Chloride	ppm	500	NS	< 3 - 22	12	47.7 - 94	73.8	Runoff / leaching from natural deposits
Color	unit	15	NS	< 5 - 10	<5	20 - 1	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	NS	24 - 376	195	552 - 856	737	Substances that form ions when in water
Sulfate	ppm	500	NS	0.8 - 44	20	24.8 - 74.1	50.7	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	NS	20 - 190	112	304 - 486	411	Runoff / leaching from natural deposits
Turbidity	NTU	5	NS	0.08 - 0.45	0.21	0.06 - 1.8	<5	Soil runoff
Iron	ppm	0.3	NS	<0.05	<0.05	<0.05	<0.05	Leaching from natural deposits
Manganese	ppm	0.05	NS	<0.05	0.03	<0.05	0.03	Leaching from natural deposits
LEAD AND COPPER RULE STUDY	**Unit**	**AL**	**PHG**	**Range**	**90th Percentile**	**Range**	**90th Percentile**	**Typical Sources in Drinking Water**
Copper	ppb	1300	170			2.9-231.1	79.4 [9]	Corrosion of household plumbing systems
Lead	ppb	15	2			.08-19.1	1.9 [10]	Corrosion of household plumbing systems

OTHER WATER QUALITY PARAMETERS	**Unit**	**NL**		**Range**	**Average**	**Range**	**Average**
Alkalinity (as $CaCO_3$)	ppm	NS		6 - 114	58	2.6 - 190	116.2
Boron	ppb	1000		<100 - 161	<100	ND	ND
Calcium	ppm	NS		3 - 28	15	80.5 -133	104
Fluoride (source water)	ppm	NS		< 0.1 - 0.2	0.1	< 0.1	0.1
Hardness (as $CaCO_3$)	ppm	NS		6 - 146	66	152 - 284	222
Magnesium	ppm	NS		<0.2 - 11.5	6.3	< 0.08 - 39.4	24.5
pH	unit	NS		7.6 - 9.7	8.9	7.68 - 9.34	8.52
Potassium	ppm	NS		0.2 - 1.8	1.0	4.37 -5.3	4.6
Silica	ppm	NS		3.8 - 7.2	5.0	25 - 30	27.5
Sodium	ppm	NS		2 - 24	14.3	46.2 - 58.5	52.6

KEY:

< / ≤	=	less than / less than or equal to
AL	=	Action Level
Max	=	Maximum
NA	=	Not applicable
ND	=	Non Detected
NL	=	Notification Level
NS	=	No Standard
NTU	=	Nephelometric Turbidity Unit
ppb	=	parts per billion
ppm	=	parts per million
TT	=	Treatment Technique
µS/cm	=	microSiemens / centimeter

(1) All results met State and Federal drinking water regulations.

(2) Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.

(3) Turbidity is measured every four hours. These are monthly average turbidity values.

(4) This is a single, maximum measuring result. This elevated turbidity was caused by the startup of the Hetch Hetchy Aqueduct after shutdown for maintenance work.

(5) This is the minimum percentage of time that the filtered water turbidity was less than 0.3 NTU.

(6) This is the highest quarterly running annual average value.

(7) TOC is a precursor for disinfection byproduct formation.

(8) Due to blending of water in the distribution system, fluoride concentration varies throughout the distribution system.

(9) Latest round of Lead and Copper Rule monitoring was in 2004.

(10) Latest round of Lead and Copper Rule monitoring was in 2004. 1 out of 41 residences were over the lead Action Level at consumer taps.

Note: Additional water quality data may be obtained by calling the City of San Bruno Water Division at (650) 616-7162

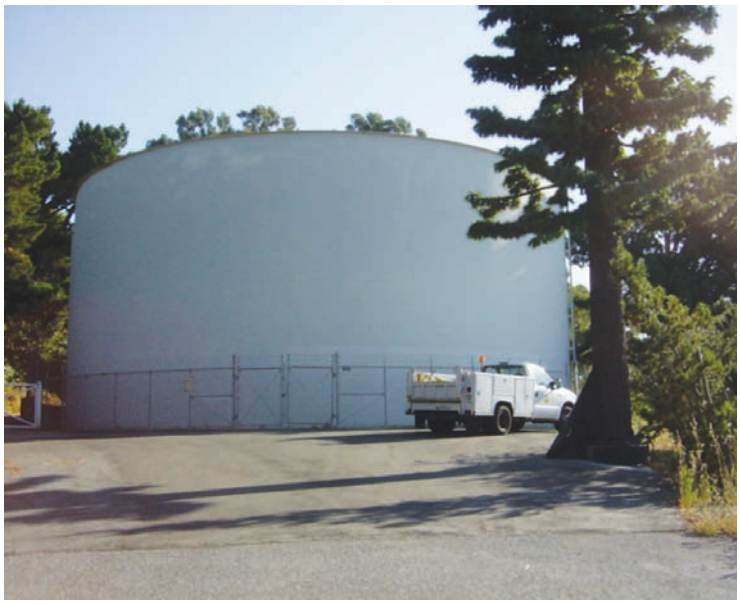
DEFINITIONS TO UNDERSTAND THIS REPORT

The following definitions are for each contaminant analyzed:

Public Health Goal (PHG)
The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG)
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U. S. Environmental Protection Agency (**USEPA**).

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a disinfectant added for water treatment below which there is no known or expected risk of health. MRDLGs are set by the U.S. Environmental Protection Agency.



Maximum Contaminant Level (MCL)
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level (MRDL)
The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Primary Drinking Water Standard or (PDWS)
MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS)
MCLs for contaminants that affect taste,odor,or appearance of the drinking water. Contaminations with SDWSs do not affect the health at the MCL levels.

Variances and Exemptions
Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Treatment Technique (TT)
A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Waiver
State permission to decrease the monitoring frequency for a particular contaminant.

ND: Not detectable at testing limit.

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

pCi/L: picocuries per liter (a measure of radiation)

City of San Bruno
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